



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-0156; Project Identifier MCAI-2022-01511-T]

RIN 2120-AA64

#### Airworthiness Directives; Airbus SAS Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2022-19-05, which applies to all Airbus SAS Model A330-841 and -941 airplanes. AD 2022-19-05 requires maintenance actions, including a high pressure valve (HPV) seal integrity test, repetitive replacement of the HPV clips, revision of the existing airplane flight manual (AFM), and implementation of updates to the FAA-approved operator's minimum equipment list (MEL). Since the FAA issued AD 2022-19-05, additional instructions and maintenance procedures have been developed to address failures of the HPV. This proposed AD continues to require certain actions in AD 2022-19-05 and would provide additional criteria for the installation of HPV and HPV clips, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporated by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0156; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

- For the EASA AD identified in this NPRM, you may contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu). You may find this material on the EASA website at [ad.easa.europa.eu](https://ad.easa.europa.eu).

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3229; email [Vladimir.Ulyanov@faa.gov](mailto:Vladimir.Ulyanov@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2023-0156; Project Identifier MCAI-2022-01511-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3229; email

Vladimir.Ulyanov@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

On August 18, 2022, the FAA issued Emergency AD 2022-18-51 for all Airbus SAS Model A330-841 and -941 airplanes. Emergency AD 2022-18-51 corresponded to EASA Emergency AD 2022-0170-E, dated August 17, 2022 (EASA Emergency AD 2022-0170-E). EASA is the Technical Agent for the Member States of the European Union. Emergency AD 2022-18-51 required revising the existing AFM to incorporate additional limitations prohibiting takeoff for certain airplane configurations; specified airplane dispatch restrictions using certain provisions of the A330 MMEL or amending the existing FAA-approved operator's MEL; and required obtaining and accomplishing instructions following certain maintenance messages. The FAA issued Emergency AD 2022-18-51 to address a leaking HPV, which may expose the pressure regulating valve (PRV), which is installed downstream from the HPV, to high pressure, possibly damaging the PRV itself and preventing its closure. The unsafe condition, if not addressed, could result in high pressure and temperatures in the duct downstream from the PRV, with possible duct burst, damage to several systems, and consequent loss of control of the airplane.

Since the FAA issued Emergency AD 2022-18-51, EASA superseded its Emergency AD 2022-0170-E and issued EASA AD 2022-0181, dated August 29, 2022 (EASA AD 2022-0181), to correct an unsafe condition for all Airbus SAS A330-841 and -941 airplanes. The FAA issued AD 2022-19-05, Amendment 39-22174 (87 FR 54870, September 8, 2022) (AD 2022-19-05), for all Airbus SAS Model A330-841 and -941 airplanes. AD 2022-19-05 was prompted by EASA AD 2022-0181, which was intended to address leaking bleed system HPVs, likely due to HPV clip failure and sealing ring damage.

AD 2022-19-05 requires revising the existing AFM to incorporate additional limitations prohibiting takeoff for certain airplane configurations; specifies airplane dispatch restrictions using certain provisions of the A330 MMEL (master minimum equipment list) or amending the existing FAA-approved operator's MEL; requires obtaining and accomplishing instructions following certain maintenance messages; revising the Limitations section of the AFM; updating the A330 MMEL with new provisions and procedures; a seal integrity test of each HPV; and a detailed inspection of the wing bellows. The FAA issued AD 2022-19-05 to address the identified unsafe condition.

#### **Actions Since AD 2022-19-05 Was Issued**

Since the FAA issued AD 2022-19-05, EASA superseded EASA AD 2022-0181, and issued EASA AD 2022-0227, dated November 24, 2022 (EASA AD 2022-0227), to correct an unsafe condition for all Airbus SAS Model A330-841 and -941 airplanes. EASA AD 2022-0227 states that Airbus has since published improved instructions and maintenance procedures to address failures of the HPV and incorporate comments received.

FAA AD 2022-19-05 explained that the requirements were “interim action,” and further rulemaking was being considered. The FAA has now determined that further rulemaking is indeed necessary, and this proposed AD follows from that determination.

The FAA is issuing this AD to address a leaking HPV, which may expose the PRV, which is installed downstream from the HPV, to high pressure, possibly damaging the PRV itself and preventing its closure. You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0156.

#### **Explanation of Retained Requirements**

Although this proposed AD does not explicitly restate the requirements of AD 2022-19-05, this proposed AD would retain certain requirements of AD 2022-19-05.

Those requirements are referenced in EASA AD 2022-0227, which, in turn, is referenced in paragraph (g) of this proposed AD.

### **Related Service Information Under 1 CFR Part 51**

EASA AD 2022-0227 specifies procedures for the following actions:

- Revision of the Limitations section of the existing AFM and removal of the previously required limitations.
- Implementation of the instructions of the MMEL update on the basis of which the operator's MEL must be amended with new provisions and procedures for the following items: Air Conditioning Pack, Engine Bleed Air Supply System, Engine Bleed IP (Intermediate Pressure) Check Valve, and Engine Bleed HP Valve and cancel the dispatch restrictions.
- A seal integrity test of each HPV, and corrective actions (including replacement of the HPV, and a detailed inspection of the wing bellow on engine 1(2) and replacement of any damaged or deformed wing bellow).

EASA AD 2022-0227 also describes the following maintenance instructions, among other actions, to be accomplished following certain faults or failures:

- HPV troubleshooting procedure and additional maintenance actions after any Class 1 maintenance message associated to an HPV fault, and corrective actions (including replacement of the HPV or wing bellow).
- HPV seal integrity test and the additional maintenance actions after any Class 1 or Class 2 maintenance message associated to a PRV fault, and corrective actions (including replacement of the HPV and PRV, and a detailed inspection of the wing bellow on engine 1(2) and replacement of any damaged or deformed wing bellow).
- A visual (borescope) inspection of the engine bleed air system (EBAS) to detect signs of foreign object debris (FOD), including metallic debris in the butterfly valve and dents or damage of the flaps of the intermediate pressure check valve (IPCV), and dents

and missing segments in the PRV, the header of the high pressure/intermediate pressure (HP/IP) duct, the y-duct, and the pylon ducts after any failure of an HPV clip and/or any of the HPV butterfly sealing rings, and corrective actions (including removing FOD and replacing the IPCV or PRV).

- A seal integrity test of each HPV after any take-off or go-around accomplished with “packs OFF” or “APU bleed ON” or “engine bleed OFF,” and corrective actions (including replacement of the HPV, and a detailed inspection of the wing bellow on engine 1(2) and replacement of any damaged or deformed wing bellow).

- Additional actions to be performed for any Class 1 maintenance message associated with an HPV fault.

- Initial and repetitive replacement of each HPV clip with a new HPV clip.

EASA AD 2022-0227 also specifies that HPV clips may be installed provided they are new and serviceable, and replaced before exceeding 4,000 hours time-in-service.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA’s Determination**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Proposed AD Requirements in this NPRM**

This proposed AD would retain certain requirements of AD 2022-19-05. This proposed AD would require accomplishing the actions specified in EASA AD 2022-0227

described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under “Differences Between this Proposed AD and the MCAI.”

### **Difference Between this Proposed AD and the MCAI**

Although EASA AD 2022-0227 requires reporting any detected failures, this proposed AD would not require any reports. Collecting this additional information will not add to the determination of the unsafe condition or corrective actions.

### **Compliance With AFM and MEL Revisions**

EASA AD 2022-0227 requires operators to “inform all flight crews” of revisions to the existing AFM and MEL, and thereafter to “operate the aeroplane accordingly.” However, this AD does not specifically require those actions, as those actions are already required by FAA regulations.

FAA regulations require operators to furnish to pilots any changes to the AFM (for example, 14 CFR 121.137), and to ensure the pilots are familiar with the AFM (for example, 14 CFR 91.505). As with any other flightcrew training requirement, training on the updated AFM content is tracked by the operators and recorded in each pilot's training record, which is available for the FAA to review. FAA regulations also require pilots to follow the procedures in the AFM including all updates. 14 CFR 91.9 requires that any person operating a civil aircraft must comply with the operating limitations specified in the AFM.

FAA regulations (14 CFR 121.628(a)(2)) require operators to provide pilots with access to all of the information contained in the operator's MEL. Furthermore, 14 CFR 121.628(a)(5) requires airplanes to be operated under all applicable conditions and limitations contained in the operator's MEL.

Therefore, including a requirement in this proposed AD to operate the airplane according to the revised AFM and MEL would be redundant and unnecessary.



## **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022-0227 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0227 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2022-0227 does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in EASA AD 2022-0227. Service information required by EASA AD 2022-0227 for compliance will be available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0156 after the FAA final rule is published.

## **Interim Action**

The FAA considers that this proposed AD would be an interim action. The FAA anticipates that further AD action will follow.

## **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 19 airplanes of U.S. registry. The new requirements of this AD add no additional economic burden. The current costs for this AD are repeated for the convenience of affected operators, as follows:

### Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$1,615
MEL update	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$1,615
HPV Seal Integrity Test	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$1,615
HPV clip replacement (both engines)	11 work-hours X \$85 per hour = \$935	\$28	\$963	\$18,297

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

### Estimated costs of on-condition actions

Action	Labor cost	Parts cost	Cost per product
HPV replacement (each)	4 work-hours X \$85 per hour = \$340	\$6,459	\$6,799
Wing bellow replacement (each wing)	6 work-hours X \$85 per hour = \$510	\$663	\$1,173
PRV replacement (both engines)	9 work-hours X \$85 per hour = \$765	\$107,620	\$108,385

The FAA has received no definitive data on which to base the cost estimates for the maintenance actions or additional actions specified in this proposed AD.

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2022-19-05, Amendment 39-22174

(87 FR 54870, dated September 8, 2022); and

b. Adding the following new AD:

**Airbus SAS:** Docket No. FAA-2023-0156; Project Identifier MCAI-2022-01511-T.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2022-19-05, Amendment 39-22174 (87 FR 54870, September 8, 2022) (AD 2022-19-05).

#### **(c) Applicability**

This AD applies to all Airbus SAS Model A330-841 and -941 airplanes, certificated in any category.

#### **(d) Subject**

Air Transport Association (ATA) of America Code: 36, Pneumatic; 75, Air.

#### **(e) Unsafe Condition**

This AD was prompted by reports of leaking bleed system high pressure valves (HPVs), likely due to HPV clip failure and sealing ring damage, and by the development of additional instructions and maintenance procedures to address HPV failures. The FAA is issuing this AD to address a leaking HPV, which may expose the pressure regulating valve (PRV), which is installed downstream from the HPV, to high pressure, possibly damaging the PRV itself and preventing its closure. The unsafe condition, if not addressed, could result in high pressure and temperatures in the duct downstream from

the PRV, with possible duct burst, damage to several systems, and consequent loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0227, dated November 24, 2022 (EASA AD 2022-0227).

**(h) Exceptions to EASA AD 2022-0227**

(1) Where EASA AD 2022-0227 refers to “05 September 2022 [the effective date of EASA AD 2022-0181],” this AD requires using September 15, 2022 (the effective date of AD 2022-19-05).

(2) Where EASA AD 2022-0227 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where paragraphs (1) and (4) of EASA AD 2022-0227 specify to inform all flightcrews of airplane flight manual (AFM) revisions and dispatch limitations, and thereafter to operate the airplane accordingly, this AD does not require those actions, as those actions are already required by existing FAA regulations (see 14 CFR 91.9, 91.505, and 121.137).

(4) This AD does not adopt the reporting requirements of paragraph (17) of EASA AD 2022-0227.

(5) This AD does not adopt the “Remarks” section of EASA AD 2022-0227.

**(i) Additional AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(ii) AMOCs approved previously for AD 2022-19-05 are approved as AMOCs for the corresponding provisions of EASA AD 2022-0227 that are required by paragraph (g) of this AD.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph(s) (i)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(j) Additional Information**

For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3229; email [Vladimir.Ulyanov@faa.gov](mailto:Vladimir.Ulyanov@faa.gov).

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0227, dated November 24, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0227, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu). You may find this EASA AD on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu).

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on January 27, 2023.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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